



# VERMONT YANKEE NUCLEAR POWER CORPORATION

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REPLY TO:

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June 12, 1981

FVY 81-93

United States Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation  
Mr. D. G. Eisenhower, Director  
Division of Licensing

References: (a) License No. DPR-28 (Docket No. 50-271)  
(b) Letter, D. G. Eisenhower to All Licensees of Operating  
Plants And Holders Of Construction Permits (Generic Letter  
81-10), dated February 18, 1981  
(c) Letter, VYNPC to USNRC, WYV 80-7, dated January 8, 1980  
(d) Letter, VYNPC to USNRC, FVY 81-65, dated April 14, 1981

Subject: Submittal of Documentation for NUREG 0737 Item III.A.1.2, Upgrade  
Emergency Support Facilities

Dear Sir:

Reference (b) requested that conceptual design descriptions be submitted for upgraded emergency support facilities at Vermont Yankee. The purpose of this letter is to forward the attached information in response to that request. Please note that additional descriptive information on this subject has already been submitted via References (c) and (d).

We trust this information is satisfactory; however should you have any further questions, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

L. H. Heider  
Vice President

RLS/sec

Attachment



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Attachment

1. Task functions of the individuals required to report to the TSC and EOF upon activation and for each emergency class.

RESPONSE:

The individuals required to report to the TSC and EOF for each emergency class are provided below.

Vermont Yankee Emergency Response

Emergency Center	Unusual Event	Alert	Site Area or General Emergency
Technical Support Center	Not Activated	Plant Superintendent (Technical Support Center Coordinator) Instrumentation & Controls Supervisor Chemistry and Health Physics Supervisor Reactor and Computer Supervisor Operations Supervisor Maintenance Supervisor Engineering Support Supervisor	Plant Superintendent (Technical Support Center Coordinator) Instrumentation & Controls Supervisor Chemistry and Health Physics Supervisor Reactor and Computer Supervisor Operations Supervisor Maintenance Supervisor Engineering Support Supervisor Systems Engineer-NSD Safety Analyst-NSD Radiological Engineer - NSD
Emergency Operations Facility/Recovery Center	Not Activated	Emergency Coordinator (Duty and Call Officer) Recovery Manager Assistant Plant Superintendent Training Supervisor Administrative Supervisor Plus other Plnt personnel called by Duty and Call Officer according to needs and Tag Board Assignments: Coordinator's Assistant Radiological Assistant Manpower and Planning Assistant Communications Assistant Personnel Equipment Monitoring Team	Emergency Coordinator (Duty and Call Officer) Recovery Manager Assistant Plant Superintendent Training Supervisor Administrative Supervisor Plus other Plant personnel called by Duty and Call Officer according to needs and Tag Board Assignments: Coordinator's Assistant Radiological Assistant Manpower and Planning Assistant Communications Assistant Personnel Equipment Monitoring Team

Emergency Center	Unusual Event	Alert	Site Area of General Emergency
		Radiological Monitoring Teams On-Site Assistance/ Rescue Team Director of Communications	Radiological Monitoring Teams On-Site Assistance/ Rescue Team Director of Communications Radiation Protection Engineer - NSD Emergency Plan Engineer - NSD Yankee Environmental Lab Personnel Nuclear Industry Assistance

The task functions of the individuals listed above are described in the Vermont Yankee Emergency Plan.

2. Descriptions of TSC instrumentation, instrument quality, instrument accuracy and reliability.

RESPONSE:

Plant process parameters are available in the TSC via the plant process computer. The present capabilities of the existing equipment include:

- a. One digital display window in the Computer Room which provides continuous visual display of any selected analog parameter.
- b. Four available analog outputs in the Computer Room for chart recorder trending of any selected analog parameters.
- c. One typer available in the Computer Room for printing of various logs which include the following:
  - 1) Print Value Summary - With one operator action, all points in the process computer will be printed.
  - 2) Alarm Summary - With one operator action, all current points in alarm status will be printed out.
  - 3) Value Print - Any computer point can be selected to print with a frequency of
    - ...Once
    - ...Every 30 secs for up to two points
    - ...Every 120 secs for up to six points
  - 4) Special Logs - A total of 31 logs containing a maximum of 15 points each in a pre-selected grouping can be requested for typer print. An additional log will give the value of the 15 most recent points in the alarm status. These logs can be requested to print out at the following frequency:

...Every 1 minute for up to two logs  
...Every 5 minutes for up to five logs  
...Every 20 minutes for up to thirty-two logs

- d. There are approximately 580 calculated and process parameters which are available from the process computer as analog values.
- e. There are approximately 240 digital, on/off, points available from the process computer.
- f. Any or all of the output devices in the Computer Room can be used without interfering with information display in the Control Room.
- g. In the Computer Room, all output devices can be used simultaneously; this includes 1 digital display window, 4 chart recorders, and 1 typer.

It is Vermont Yankee's opinion that the present capabilities for displaying and transmitting plant status to those knowledgeable individuals located in the TSC is more than satisfactory as an interim measure.

Completely independent of NRC requirements, Vermont Yankee has hired an outside consultant, and with the aid of the Yankee Nuclear Services Division, is assessing its long-term computer system requirements. TSC, Control Room and EOF instrumentation/computer interface upgrading is part of the overall study; however since the computer upgrading study has not been completed it is premature for us to provide all the details requested by this item. It is our intent to provide the requested conceptual design information in sufficient detail to allow for NRC pre-implementation review prior to 1/1/82. Parameters presently being considered for an enhanced TSC display include those necessary for TSC personnel to monitor primary system performance, i.e., neutron flux, water level, pressure, temperature. In addition to this effort, Vermont Yankee is monitoring a program in which the Yankee Nuclear Power Station in Rowe, Mass., is cooperating with EPRI and NSAC to develop a visual display system to aid station operators in assessing emergency situations. Information gained from this program will be factored into Vermont Yankee's final display design.

- 3. Descriptions of the TSC power supply systems, power supply quality, reliability and availability, and consequences of power supply interruption.

RESPONSE:

A description of the TSC power supply systems to be installed to meet the final TSC requirements is not available at this time. See the response to Item 2.

- 4. A description of the design of the TSC data display systems, plant records, and data available and record management systems.

RESPONSE:

A description of the design of the enhanced TSC data display systems is not available at this time. See the response to Item 2.

The following documents/records are available in the TSC. It should be noted that management (control) of these documents is rigidly controlled by plant procedures.

- 1) Technical specification
- 2) Plant Procedures, including operating, emergency and administrative procedures
- 3) Emergency Plan
- 4) FSAR
- 5) Plant drawings, including flow diagrams, layout/arrangement drawings, wiring and control diagrams, instrument lists, cable lists, detailed equipment drawings.

All of the above data is filed in an orderly manner and is easily accessed.

5. Descriptions of the data transmission system to be installed between the TSC and Control Room.

RESPONSE:

A description of the enhanced data transmission system to be installed between the TSC and Control Room is not available at this time. See the response to Item 2.

It is expected that data transmission between the TSC and Control Room will be via the plant computer or some other data acquisition/management system.

6. Description of data to be provided to the EOF.

RESPONSE:

The EOF will be staffed as described in the response to Item 1. Those individuals will be provided with sufficient instrumentation/information to allow a continuing evaluation and coordination of all activities/parameters related to the emergency and having potential environmental consequences, i.e., radiological and meteorological monitoring.